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THE JOHNS HOPKINS UNIVERSITY

FROM 1873 TO 1893.

BY
DANIEL C. GILMAN.

Twenty years having elapsed since the death of the founder the following historical statements may be of interest to the public.

Before speaking of the University, a few words should be devoted to the memory of its founder, Johns Hopkins, of Baltimore. This large-minded man, whose name is now renowned in the annals of American philanthropy, acquired his fortune by slow and sagacious methods. He was born May 19, 1794, in Anne Arundel county, Maryland, not far from the city of Annapolis, of a family which for several generations had adhered to the views of the Society of Friends. His ancestors were among the earliest settlers of the colony. While still a boy, Johns Hopkins came to Baltimore without any capital but good health, the thrifty habits in which he had been brought up, and unusual capacity for a life of industrious enterprise. He began on the lowest round of the ladder of fortune, and by his economy, fidelity, sagacity, and perseverance he rose to independence and influence. He was called to many positions of financial responsibility, among the most important being that of President of the Merchants' National Bank, and that of a Director in the Baltimore and Ohio Railroad Company. He was a man of positive opinions in political affairs, yet he never entered political life; and although he contributed to the support of educational and benevolent societies he was not active in their management. In the latter part of his life, he dwelt during the winter in a large mansion, still standing on the north side of Saratoga street, west of North Charles street, and during the summer on an estate called Clifton, in Baltimore county. In both these places he exercised hospitality without ostentation. He bought a large library and many oil paintings which are now preserved in memorial rooms at the Johns Hopkins Hospital. Nevertheless, his pursuits were wholly mercantile, and his time and strength were chiefly devoted to the business in which he was engaged, —first as a wholesale grocer, and afterwards as a capitalist interested in many and diverse financial undertakings. More than once, in time of commercial panic, he lent his credit to the support of individuals and firms, with a liberality which entitled him to general gratitude. He died in Baltimore, December 24, 1873, at the age of seventy-nine years. He had never married.

At the request of Mr. Hopkins, an incorporation was formed, August 24, 1867, under a general statute, "for the promotion of education in the State of Maryland." Nearly three years later, June 13, 1870, the Trustees met



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and elected Galloway Cheston, President of the Board, and William Hopkins, Secretary. On the death of the founder, it appeared that after providing for his near of kin, he had bequeathed the principal part of his estate to the two institutions that bear his name, the Johns Hopkins University and the Johns Hopkins Hospital. Each of them received an endowment estimated in round numbers at three and a half million dollars. The gift to the University included his estate of Clifton (three hundred and thirty acres of land), fifteen thousand shares of the common stock of the Baltimore and Ohio Railroad, of which the par value was one million five hundred thousand dollars, and other securities which were valued at seven hundred and fifty thousand dollars.

The Trustees met again February 6, 1874, and proceeded to the organization of the work entrusted to them. They collected a small but excellent library illustrating the history of the universities of this and of other lands; they visited in a body Cambridge, New Haven, Ithaca, Ann Arbor, Philadelphia, Charlottesville, and other seats of learning; they were favored with innumerable suggestions and recommendations from those who knew much about education, and from those who knew little. They invited several scholars of distinction to give them their counsel, among them three presidents of universities, Eliot of Harvard, White of Cornell, and Angell of Michigan, who answered in the frankest manner the searching questions which were put to them by a sagacious committee.

The original incorporators were these:

GEORGE W. DOBBIN,	THOMAS M. SMITH,
GEORGE M. GILL,	WILLIAM HOPKINS,
ANDREW STERRETT RIDGELY,	LEWIS N. HOPKINS,
THOMAS DONALDSON,	JOHN W. GARRETT,
JAMES A. L. MCCLURE,	ALAN P. SMITH,
CHARLES J. M. GWINN,	JOHN FONERDEN.

They elected the following Board of Trustees who had been selected by the founder:

<i>Elected.</i>	<i>Retired.</i>	<i>Elected.</i>	<i>Retired.</i>
1867...GEORGE WILLIAM BROWN.....*	1890	1867...LEWIS N. HOPKINS.....	
1867...GALLOWAY CHESTON.....*	1881	1867...WILLIAM HOPKINS.....*	1881
1867...GEORGE W. DOBBIN.....*	1891	1867...REVERDY JOHNSON, JR.....	1880
1867...JOHN FONERDEN.....*	1870	1867...FRANCIS T. KING.....*	1891
1867...JOHN W. GARRETT.....*	1884	1867...THOMAS M. SMITH.....*	1877
1867...CHARLES J. M. GWINN.....		1867...FRANCIS WHITE.....	

As vacancies have arisen the following persons have become Trustees, by co-optation:

<i>Elected.</i>	<i>Elected.</i>
1870...JAMES CAREY THOMAS.	1886...ROBERT GARRETT.
1878...C. MORTON STEWART.	1891...JAMES L. McLANE.
1881...JOSEPH P. ELLIOTT.	1892...W. GRAHAM BOWDOIN.
1881...J. HALL PLEASANTS.	1892...WILLIAM T. DIXON.
1881...ALAN P. SMITH.	

* Deceased.

On the thirtieth day of December, 1874, the Trustees elected Daniel C. Gilman, at that time President of the University of California, and formerly a Professor in Yale College, to be President of the Johns Hopkins University, and he entered upon the duties of this office in the following May. 176

In the summer of 1875, at the request of the Trustees, he went to Europe and conferred with many leaders of university education in Great Britain and on the continent. At the same time he visited many of the most important seats of learning. During the following winter the plans of the University were formulated and were made public in an inaugural address by the President of the University, which was delivered on the twenty-second of February, 1876, in the Academy of Music.

In this address the aims of the University were thus defined: "An enduring foundation; a slow development; first local, then regional, then national influence; the most liberal promotion of all useful knowledge; the special provision of such departments as are elsewhere neglected in the country; a prosperous affiliation with all other institutions, avoiding interferences, and engaging in no rivalry; the encouragement of research; the promotion of young men, and the advancement of individual scholars, who by their excellence will advance the sciences they pursue, and the society where they dwell."

The agencies to be employed were enumerated in these words: "A large staff of teachers; abundance of instruments, apparatus, diagrams, books, and other means of research and instruction; good laboratories, with all the requisite facilities; accessory influences, coming both from Baltimore and Washington; funds so unrestricted, charter so free, schemes so elastic, that, as the world goes forward, our plans will be adjusted to its new requirements."

These aims and these agencies suggested the following method of procedure: "Liberal advanced instruction for those who want it; distinctive honors for those who win them; appointed courses for those who need them; special courses for those who can take no other; a combination of lectures, recitations, laboratory practice, field work and private instruction; the largest discretion allowed to the Faculty consistent with the purposes in view; and, finally, an appeal to the community to increase our means, to strengthen our hands, to supplement our deficiencies, and especially to surround our scholars with those social, domestic and religious influences which a corporation can at best imperfectly provide, but which may be abundantly enjoyed in the homes, the churches, and the private associations of an enlightened Christian city."

In accordance with these plans, the university was opened for students in October, 1876, in buildings provided at the corner of Howard and Little Ross streets. An opening address, having special relations to the anticipated school of medicine, in which the Hospital and the University were to be united, was delivered by Professor Huxley, of London.

One of the earliest duties which devolved upon the President and Trustees, after deciding upon the general scope of the University, was to select a staff

of teachers by whose assistance and counsel the details of the plan should be worked out. It would hardly be right in this place to recall the distinctive merits of the able and learned scholars who have formed the academic staff during the first seventeen years, but perhaps the writer may be allowed to pay in passing a tribute of gratitude and respect to those who entered the service of the University at its beginning. To their suggestions, their enthusiasm, their learning, and above all their freedom from selfish aims and from petty jealousies, must be attributed in a great degree the early distinction of this institution. They came from widely distant places; they had been trained by widely different methods; they had widely different intellectual aptitudes; but their diversities were unified by their devotion to the university in which they were enlisted, and by their desire to promote its excellence. This spirit has continued till the present time, and has descended to those who have from time to time joined the ranks, so that it may be emphatically said that the union of the Faculty has been the key to its influence.

The first requisite of success in any institution is a body of professors, each of whom gives freely the best of which he is capable. The best varies with the individual; one may be an admirable lecturer or teacher; another a profound thinker; a third a keen investigator; another a skilful experimenter; the next a man of great acquisitions; one may excel by his industry, another by his enthusiasm, another by his learning, another by his genius; but every member of a faculty should be distinguished by some uncommon attainments and by some special aptitudes, while the faculty as a whole should be united and coöperative. Each professor, according to his subject and his talents, should have his own best mode of working, adjusted to and controlled by the exigencies of the institution with which he is associated.

In the selection of the faculty, the authorities endeavored to consider especially the devotion of the candidate to some particular line of study and the certainty of his eminence in that specialty; power to pursue independent and original investigation and to inspire the young with enthusiasm for study and research; willingness to coöperate in building up a new institution; and freedom from tendencies toward ecclesiastical or sectional controversies. They announced that they would not be governed by denominational or geographical considerations in the appointment of any teacher; but would endeavor to select the best person whose services they could secure in the position to be filled—irrespective of the place where he was born, or the college in which he was trained, or the religious body with which he might be enrolled.

In addition to the qualifications above mentioned, regard has always been paid to those personal characteristics which cannot be rigorously defined, but which cannot be overlooked if the ethical as well as the intellectual character of a professorial station is considered, and if the social relations of a teacher to his colleagues, his pupils, and their friends, are to be har-

moniously maintained. The professor in a university teaches as much by his example as by his precepts.

The names of the professors in the philosophical faculty from 1876 to 1893 are as follows, arranged in the order of their appointment to that rank. Many of them were previously associate-professors, and not a few of them have gone forward through all the stages of advancement, fellows, associates, associate-professors and professors.

<i>Appointed.</i>	<i>Retired.</i>
1874...DANIEL C. GILMAN, LL. D.....	<i>President</i>
1876...BASIL L. GILDERSLEEVE, LL. D....	<i>Greek</i>
1876...J. J. SYLVESTER, LL. D.....	<i>Mathematics</i> 1883
1876...IRA REMSEN, Ph. D., LL. D.....	<i>Chemistry</i>
1876...HENRY A. ROWLAND, Ph. D.....	<i>Physics</i>
1876...H. NEWELL MARTIN, Sc. D.....	<i>Biology</i> 1893
1876...CHARLES D. MORRIS, A. M.....	<i>Classics (Collegiate)</i> *1886
1883...PAUL HAUPT, Ph. D.....	<i>Semitic Languages</i>
1884...G. STANLEY HALL, LL. D.....	<i>Psychology</i> 1888
1884...WILLIAM H. WELCH, M. D.....	<i>Pathology</i>
1884...SIMON NEWCOMB, LL. D.....	<i>Mathematics and Astronomy</i>
1886...JOHN H. WRIGHT, A. M.....	<i>Classical Philology</i> 1887
1889...EDWARD H. GRIFFIN, LL. D.....	<i>History of Philosophy</i>
1891...HERBERT B. ADAMS, Ph. D., LL. D..	<i>Amer. and Inst. History</i>
1891...WILLIAM K. BROOKS, Ph. D., LL. D.	<i>Zoology</i>
1891...MAURICE BLOOMFIELD, Ph. D.....	<i>Sanskrit and Comparative Philology</i> ..
1892...THOMAS CRAIG, Ph. D.....	<i>Pure Mathematics</i>
1892...A. MARSHALL ELLIOTT, LL. D.....	<i>Romance Languages</i>
1892...HARMON N. MORSE, Ph. D.....	<i>Analytical Chemistry</i>
1892...MINTON WARREN, Ph. D.....	<i>Latin</i>
1892...GEORGE H. WILLIAMS, Ph. D.....	<i>Inorganic Geology</i>
1892...GEORGE H. EMMOTT, A. M.....	<i>Roman Law, etc</i>
1892...HENRY WOOD, Ph. D.....	<i>German</i>
1892...FABIAN FRANKLIN, Ph. D.....	<i>Mathematics</i>
1892...EDWARD RENOUF, Ph. D.....	<i>Chemistry (Collegiate)</i>
1893...WILLIAM H. HOWELL, M. D., Ph. D.	<i>Physiology</i>
1893...JAMES W. BRIGHT, Ph. D.....	<i>English Philology</i>
1893...WM. HAND BROWNE, M. D.....	<i>English Literature</i>
1893...HERBERT E. GREENE, Ph. D.....	<i>English (Collegiate)</i>

In the medical faculty, of which an account will be given on a subsequent page, the following professors have been appointed :

<i>Appointed.</i>	<i>Retired.</i>
1883...H. NEWELL MARTIN, M. D.....	<i>Physiology</i> 1893
1883...IRA REMSEN, M. D.....	<i>Chemistry</i>
1884...WILLIAM H. WELCH, M. D.....	<i>Pathology</i>
1889...WILLIAM OSLER, M. D.....	<i>Medicine</i>
1889...HENRY M. HURD, M. D.....	<i>Psychiatry</i>
1889...HOWARD A. KELLY, M. D.....	<i>Gynecology</i>
1889...WILLIAM S. HALSTED, M. D.....	<i>Surgery</i>
1893...JOHN J. ABEL, M. D.....	<i>Pharmacology</i>
1893...WILLIAM H. HOWELL, M. D.....	<i>Physiology</i>
1893...FRANKLIN P. MALL, M. D.....	<i>Anatomy</i>
1893...WILLIAM K. BROOKS, Ph. D.....	<i>Zoology</i>

* Deceased.

In addition to those who have become professors, the following persons have been appointed Associate Professors, and their names are arranged in the order of their appointment:

<i>Appointed.</i>		<i>Entered.</i>
1884	CHARLES S. HASTINGS, Ph. D.	<i>Physics</i> 1883
1889	WILLIAM E. STURT, Ph. D.	<i>Mathematics</i> 1889
1894	J. BENJAMIN HARRIS, A. M.	<i>New Testament Greek</i> 1893
1895	C. RENÉ GREGORY, Ph. D.	<i>New Testament Greek</i> 1893
1897	RICHARD T. ELY, Ph. D.	<i>Political Economy</i> 1892
1898	WILLIAM T. COUNCILMAN, M. D.	<i>Anatomy</i> 1892
1898	ESTHER L. KINGBOLD, Ph. D.	<i>Physics</i> 1892
1898	EDWARD H. SPINKER, Ph. D.	<i>Greek and Latin</i> 1892
1899	LOUIS DUDMAN, Ph. D.	<i>Electricity</i> 1892
1899	STEWART A. ANDREWS, Ph. D.	<i>Biology</i> 1892
1899	WILLIAM B. CLARK, Ph. D.	<i>Organic Geology</i> 1892
1899	JOSEPH S. AKES, Ph. D.	<i>Physics</i> 1892
1899	MARION D. LEARNED, Ph. D.	<i>German</i> 1892
1899	ERNEY F. SMITH, Ph. D.	<i>Latin</i> 1892

The number of associates, readers, and assistants has been very large, most such appointments having been made for brief periods among young men of promise looking forward to preferment in this institution or elsewhere.

Besides the resident professors, it has been the policy of the University to enlist from time to time the services of distinguished scholars as lecturers on those subjects to which their studies have been particularly directed. During the first few years the number of such lecturers was larger, and the duration of their visits was longer than it has been recently. When the faculty was small, the need of the occasional lecturer was, for obvious reasons, more apparent than it has been in later days. Still the University continues to invite the coöperation of non-resident professors, and the proximity of Baltimore to Washington makes it particularly easy to engage learned gentlemen from the capital to give occasional lectures upon their favorite studies. Recently two lectureships have been established by donations, which will be mentioned in a later paragraph. A few of those who held the position of lecturers made Baltimore their home for such prolonged periods that they could not properly be called non-resident. These are indicated by an asterisk in the following list, which contains the principal appointments. It might be much enlarged by naming those persons who have lectured at the request of one department of the University and not of the Trustees, and by naming some who gave but single lectures.

Originally Appointed.

1874	SIMON NEWCOMB	<i>Astronomy.</i>
1876	LÉONCE BÉBILON*	<i>French.</i>
1876	JOHN S. BILLINGS	<i>Medical History, etc.</i>
1876	FRANCIS J. CHILD	<i>English Literature.</i>
1876	THOMAS M. COOLEY	<i>Law.</i>
1876	JULIUS E. HILGARD	<i>Geologic Surveys.</i>
1876	JAMES RUSSELL LOWELL	<i>Classical Literature.</i>
1876	JOHN W. Mallett	<i>Technological Chemistry.</i>
1876	FRANCIS A. WALKER	<i>Political Economy.</i>

Originally Appointed.

1876.....	WILLIAM D. WHITNEY.....	<i>Comparative Philology.</i>
1878.....	WILLIAM F. ALLEN.....	<i>History.</i>
1878.....	WILLIAM JAMES.....	<i>Psychology.</i>
1878.....	GEORGE S. MORRIS*.....	<i>History of Philosophy.</i>
1879.....	J. LEWIS DIMAN.....	<i>History.</i>
1879.....	H. VON HOLST.....	<i>History.</i>
1879.....	WILLIAM G. FARLOW.....	<i>Botany.</i>
1879.....	J. WILLARD GIBBS.....	<i>Theoretical Mechanics.</i>
1879.....	SIDNEY LANIER*.....	<i>English Literature.</i>
1879.....	CHARLES S. PEIRCE*.....	<i>Logic.</i>
1880.....	JOHN TROWBRIDGE.....	<i>Physics.</i>
1881.....	A. GRAHAM BELL.....	<i>Phonology.</i>
1881.....	S. P. LANGLEY.....	<i>Physics.</i>
1881.....	JOHN MCCRADY.....	<i>Biology.</i>
1881.....	JAMES BRYCE.....	<i>Political Science.</i>
1881.....	EDWARD A. FREEMAN.....	<i>History.</i>
1881.....	JOHN J. KNOX.....	<i>Banking.</i>
1882.....	ARTHUR CAYLEY.....	<i>Mathematics.</i>
1882.....	WILLIAM W. GOODWIN.....	<i>Plato.</i>
1882.....	G. STANLEY HALL*.....	<i>Psychology.</i>
1882.....	RICHARD M. VENABLE.....	<i>Constitutional Law.</i>
1882.....	JAMES A. HARRISON.....	<i>Anglo-Saxon.</i>
1882.....	J. RENDEL HARRIS*.....	<i>New Testament Greek.</i>
1883.....	GEORGE W. CABLE.....	<i>English Literature.</i>
1883.....	WILLIAM W. STORY.....	<i>Michel Angelo.</i>
1883.....	HIRAM CORSON.....	<i>English Literature.</i>
1883.....	F. SEYMOUR HADEN.....	<i>Etchers and Etching.</i>
1884.....	WILLIAM TRELEASE.....	<i>Botany.</i>
1884.....	J. THACHER CLARKE.....	<i>Explorations in Assos.</i>
1884.....	JOSIAH ROYCE.....	<i>Philosophy.</i>
1884.....	WILLIAM J. STILLMAN.....	<i>Archæology.</i>
1884.....	CHARLES WALDSTEIN.....	<i>Archæology.</i>
1884.....	SIR WILLIAM THOMSON (LORD KELVIN).....	<i>Molecular Dynamics.</i>
1885.....	A. MELVILLE BELL.....	<i>Phonetics, etc.</i>
1885.....	EDMUND GOSSE.....	<i>English Literature.</i>
1885.....	EUGENE SCHUYLER.....	<i>U. S. Diplomacy.</i>
1885.....	JUSTIN WINSOR.....	<i>Shakespeare.</i>
1885.....	FREDERICK WEDMORE.....	<i>Modern Etchings.</i>
1886.....	ISAAC H. HALL.....	<i>New Testament.</i>
1886.....	WILLIAM HAYES WARD.....	<i>Assyria.</i>
1886.....	WILLIAM LIBBEY, JR.....	<i>Alaska.</i>
1886.....	ALFRED R. WALLACE.....	<i>Island Life.</i>
1886.....	MANDELL CREIGHTON.....	<i>Rise of European Universities.</i>
1887.....	ARTHUR L. FROTHINGHAM, JR.....	<i>Babylonian and Assyrian Art.</i>
1887.....	RODOLFO LANCIANI.....	<i>Roman Archeology.</i>
1888.....	ANDREW D. WHITE.....	<i>The French Revolution.</i>
1888.....	ELGIN R. L. GOULD*.....	<i>Social Statistics.</i>
1888.....	WOODROW WILSON*.....	<i>Science of Administration.</i>
1889.....	AMOS G. WARNER.....	<i>Charities.</i>
1890.....	JOHN A. BROADUS.....	<i>Origin of Christianity.</i>
1891.....	EDMUND C. STEDMAN.....	<i>Nature and Elements of Poetry.</i>
1891.....	DAVID C. BELL.....	<i>Vocal Expression.</i>
1891.....	J. FRANKLIN JAMESON.....	<i>Constitutional History.</i>
1891.....	JOHN A. KASSON.....	<i>History of Diplomacy.</i>
1891.....	GEORGE LYMAN KITTEDGE.....	<i>The Gawain Romances.</i>
1891.....	RICHARD G. MOULTON.....	<i>Milton's Poetic Art.</i>

Originally Appointed.

1891.....	JAMES SCHOULER*.....	<i>American Political History.</i>
1891.....	CALEB T. WINCHESTER.....	<i>English Literature.</i>
1891.....	CARROLL D. WRIGHT.....	<i>Social Science.</i>
1892.....	RICHARD C. JEBB.....	<i>Greek Poetry.</i>
1892.....	WILLIAM R. HARPER.....	<i>Old Testament Scriptures.</i>
1892.....	RICHARD S. STORRS.....	<i>St. Bernard.</i>
1892.....	OLIVER ELTON.....	<i>English Literature.</i>
1892.....	FREDERIC BANCROFT.....	<i>American Diplomatic History.</i>
1892.....	ALBERT SHAW.....	<i>Municipal Problems.</i>
1892.....	JOHN MURRAY.....	<i>Voyage of the "Challenger."</i>
1892.....	FRANCIS B. GUMMERE.....	<i>Ballad Poetry.</i>
1892.....	HENRY C. ADAMS.....	<i>Finance.</i>
1892.....	JOHN B. CLARK.....	<i>Economics.</i>
1892.....	WILLIAM T. HARRIS.....	<i>Pedagogics.</i>
1892.....	JAMES MACALISTER.....	<i>Pedagogics.</i>
1893.....	ROBERT Y. TYRRELL.....	<i>Latin Poetry.</i>
1893.....	WILLIAM R. HUNTINGTON.....	<i>Christian Life.</i>

From the opening of the courses a distinction has been made between university and collegiate methods of instruction. The terms university and college have been so frequently interchanged in this country that their significance is liable to be confounded; and it may be worth while, once more at least, to call attention to the distinction which is here made.

The college is understood to be a place for the orderly training of youth in those elements of learning which should underlie all liberal and professional culture. The ordinary conclusion of a college course is the Bachelor's degree. Often, but not necessarily, the college provides for the ecclesiastical and religious as well as the intellectual training of its scholars. Its scheme admits but little choice. Frequent daily drill in languages, mathematics, and science, with compulsory attendance and repeated formal examinations, is the discipline to which each student is submitted. This work is simple, methodical, and comparatively inexpensive. It is understood and appreciated in every part of this country.

In the university more advanced and special instruction is given to those who have already received a college training or its equivalent, and who now desire to concentrate their attention upon special departments of learning and research. Libraries, laboratories, and apparatus require to be liberally provided and maintained. The holders of professorial chairs must be expected and encouraged to advance by positive researches the sciences to which they are devoted; and arrangements must be made in some way to publish and bring before the criticism of the world the results of such investigations. Primarily, instruction is the duty of the professor in a university as it is in a college; but university students should be so mature and so well trained as to exact from their teachers the most advanced instruction, and even to quicken and inspire by their appreciative responses the new investigations which their professors undertake. Such work is costly and complex; it varies with time, place, and teacher; it is always somewhat remote from popular sympathy, and liable to be depreciated by the ignorant

and thoughtless. But it is by the influence of universities, with their comprehensive libraries, their costly instruments, their stimulating associations and helpful criticisms, and especially their great professors, indifferent to popular applause, superior to authoritative dicta, devoted to the discovery and revelation of truth, that knowledge has been promoted, and society released from the fetters of superstition and the trammels of ignorance, ever since the revival of letters.

In accordance with the plans thus formulated, the students have included those who have already taken an academic degree and have here engaged in advanced studies; those who have entered as candidates for the Bachelor's degree; and those who have pursued special courses without reference to degrees. The whole number of persons enrolled in these three classes, from the opening of the University to the end of the seventeenth academic year (June, 1893), is two thousand two hundred and forty-six. Nine hundred and forty-seven persons have pursued undergraduate courses and fifteen hundred and nineteen have followed graduate studies. Many of those who entered as undergraduates have continued as graduates, and have proceeded to the degree of Doctor of Philosophy. These students have come from nearly every State in the Union, and not a few of them have come from foreign lands. Many of those who received degrees before coming here were graduates of the principal institutions of this country. The degree of Doctor of Philosophy has been awarded after three years or more of graduate study to two hundred and seventy-seven persons, and that of Bachelor of Arts to three hundred and eighty-one persons at the end of their collegiate course.

Only these two degrees have been offered to the students of this University. Believing that the manifold forms in which the baccalaureate degree is conferred are confusing to the public, and that they tend to lessen the respect for academic titles, the authorities of the Johns Hopkins University determined to bestow upon all those who complete their collegiate courses the title of Bachelor of Arts. This degree is intended to indicate that its possessor has received a liberal education, or in other words that he has completed a prolonged and systematic course of studies in which languages, mathematics, sciences, history, and philosophy have been included. The amount of time devoted to each of these various subjects varies according to individual needs and preference, but all the combinations are supposed to be equally difficult and honorable. Seven such combinations or groups of studies have been definitely arranged, and "the group system," thus introduced, combines many of the advantages of the elective system, with many of the advantages of a fixed curriculum. The undergraduate has his choice among many different lines of study, but having made this determination he is expected to follow the sequence prescribed for him by his teachers. He may follow the old classical course; or he may give decided preference to mathematics and physics; or he may select a group of studies, antecedent to the studies of a medical school; or he may pursue a scientific

course in which chemistry predominates; or he may lay a foundation for the profession of law by the study of history and political science; or he may give to modern languages the preference accorded in the first group to the ancient classics. In making his selection, and indeed in prosecuting the career of an undergraduate, he has the counsel of some member of the faculty who is called his adviser. While each course has its predominant studies, each comprises, in addition, the study of French and German, and at least one branch of science, usually chemistry or physics, with laboratory exercises.

The degree of Doctor of Philosophy is offered to those who continue their university studies for three years or more after having attained the baccalaureate degree. Their attention must be given to studies which are included in the faculty of philosophy and the liberal arts, and not in the professional faculties of Law, Medicine, and Theology. Students who have graduated in other institutions of repute may offer themselves as candidates for this degree. In addition to the requirements above mentioned, the student must show his proficiency in one principal subject and in two that are secondary, and must submit himself to rigid examinations, first written and then oral. He must also present a thesis which must receive the written approval of the special committee to which it may be referred, with the concurrence of the entire faculty, and must subsequently be printed. These requisitions are enforced by an academic body known as the Board of University Studies, which has prescribed the following regulations:—

"A Board of University Studies is constituted for the purpose of guiding the work of those who may become candidates for this degree. The time of study is a period of at least three years of distinctive university work in the philosophical Faculty. It is desirable that the student accepted as a candidate should reside here continuously until his final examinations are passed, and he is required to spend the last year before he is graduated in definite courses of study at this University. Before he can be accepted as a candidate, he must satisfy the examiners that he has received a good collegiate education, that he has a reading knowledge of French and German, and that he has a good command of literary expression. He must also name his principal subject of study and the two subordinate subjects.

The Board reserves the right to say in each case whether the antecedent training has been satisfactory, and if any of the years of advanced work have been passed by the candidate away from this University, whether they may be regarded as spent in university studies under suitable guidance and favorable conditions. Such studies must have been pursued without serious distractions and under qualified teachers.

Private study, or study pursued at a distance from libraries and laboratories and other facilities, will not be considered as equivalent to university study.

In the conditions which are stated below, it will appear that there are several tests of the proficiency of the candidate, in addition to the constant observation of his instructors. A carefully prepared thesis must be presented by the candidate on a subject approved by his chief adviser, and this thesis must receive the approbation of the Board. There are private examinations of the candidate, both in his chief subject and in the subordi-

nate subjects. If these tests are successfully passed, there is a final oral examination in the presence of the Board."

As an indication of the possible combinations which may be made by those who are studying for the degree of Doctor of Philosophy, the following schedule is presented :

Physics, Mathematics, and Chemistry ;
 Animal Physiology, Animal Morphology, and Chemistry ;
 Chemistry, Mineralogy, and Geology ;
 Mathematics, Astronomy, and Physics ;
 Sanskrit, Greek, and Latin ;
 History, Political Economy, and International Law ;
 Greek, Sanskrit, and Latin ;
 French, Italian, and German ;
 Latin, Sanskrit, and Roman Law ;
 Latin, Sanskrit, and German ;
 Assyriology, Ethiopic and Arabic, and Greek ;
 Political Economy, History, and Administration ;
 English, German, and Old Norse ;
 Inorganic Geology and Petrography, Mineralogy, and Chemistry ;
 Geology, Chemistry, and Physics ;
 Romance Languages, German, and English ;
 Latin, Greek, and Sanskrit ;
 German, English, and Sanskrit.

Arrangements have recently been made for courses of instruction leading up to the degree of Doctor of Medicine, which will hereafter be conferred.

While students are encouraged to proceed to academic degrees, the authorities have always borne in mind the needs of those who could not, for one reason or another, remain in the university for more than a year or two, and who might wish to prosecute their studies in a particular direction without any reference to academic honors. Such students have always been welcome, especially those who have been mature enough to know their own requirements and to follow their chosen courses without the incentive of examinations and diplomas.

Much encouragement has been given to the publication of scientific journals and monographs. Six serials devoted to Mathematics, Chemistry, Philology, Biology, History, Assyriology have been published for several years with the financial support of the Trustees. A journal entitled Modern Language Notes has been maintained by the professors in that department of instruction. A monthly meteorological Report and a weekly crop Bulletin are published under the joint auspices of the State, the U. S. Weather Bureau, the University, and the Maryland Agricultural College. More than one hundred theses of those scholars who have graduated as Doctors of Philosophy have been printed. Occasional financial support has been given to other publications, among them the successive maps of the vicinity of Baltimore and of the geological structure of Maryland by Professors Williams and Clark; the repeated studies of the Oyster by Professor Brooks; the elaborate memoir on Salpa and other monographs by the same investigator; the maps of the Solar Spectrum by Professor Rowland, and his original investigation of the mechanical equivalent of heat; studies in logic by Mr. Charles S. Peirce and his scholars; essays in literature and philology by Professor Gildersleeve; an edition (facsimile) of the

Teaching of the Apostles and a study of New Testament Autographs by Professor Harris; the Embryology of Insects and Arachnids by A. T. Bruce; a Chaldaean flood tablet, reconstructed and reproduced in facsimile by Professor Haupt; and a critical edition of the Hebrew Text of the Old Testament, also by Professor Haupt.

From the Johns Hopkins Hospital monthly Bulletins and occasional Reports are also issued.

Bibliographical summaries have been published exhibiting the writings of members of this university in Philology, Chemistry, Mineralogy and Geology.

Another form of intellectual activity is shown in the seminaries and scientific associations which have more or less of an official character. In the seminary, the professor engages with a small company of advanced students, in some line of investigation—the results of which, if found important, are often published. The relations of the head of a seminary to those whom he admits to this advanced work, are very close. The younger men have an opportunity of seeing the methods by which older men work. The sources of knowledge, the so-called authorities, are constantly examined. The drift of modern discussions is followed. Investigations, sometimes of a very special character, are carefully prosecuted. All this is done upon a plan, and with the incessant supervision of the director, upon whose learning, enthusiasm, and suggestiveness, the success of the seminary depends. Each such seminary among us has its own collection of books.

The associations or societies serve a different purpose. They bring together larger companies of professors and graduate students, who hear and discuss such papers as the members may present. These papers are not connected by one thread like those which come before the seminaries. They are usually of more general interest, and they often present the results of long continued thought and investigation.

The site selected when the University was opened in the heart of Baltimore, near the corner of Howard and Monument streets, has proved so convenient, that from time to time additional property in that neighborhood has been secured and the buildings thus purchased have either been modified so as to meet the academic needs, or have given place to new and commodious edifices.

The principal buildings are these:

- (1). A central administration building, in which are the class-rooms for classical and oriental studies.
- (2). A library building, in which are also rooms devoted especially to history and political science.
- (3). A chemical laboratory, well equipped for the service of about one hundred and fifty workers.
- (4). A biological laboratory, with excellent arrangements for physiological and morphological investigations.

(5). A physical laboratory—the latest and best of the laboratories—with excellent accommodations for physical research and instruction.

(6). A gymnasium for bodily exercise.

(7). Two dwelling houses, appropriated to the collections in mineralogy and geology until a suitable museum and laboratory can be constructed.

(8). Levering Hall, constructed for the uses of the Young Men's Christian Association, and containing a large hall which may be used for general purposes.

(9). Smaller buildings used for the smaller classes.

(10). An official residence of the President, which came to the University as a part of the bequest of the late John W. McCoy.

(11). McCoy Hall, now approaching completion.

The library of the university numbers nearly 62,000 well selected volumes, —including "the McCoy library" not yet incorporated with the other books, and numbering 8,000 volumes. Not far from 1,000 periodicals are received from every part of the civilized world. Quite near to the University is the Library of the Peabody Institute, a large, well-chosen, well-arranged, and well-catalogued collection. It numbers more than one hundred and twenty thousand volumes.

The university has extensive collections of minerals and fossils, a select zoölogical and botanical museum, a valuable collection of ancient coins, a remarkable collection of Egyptian antiquities (formed by Col. Mendes I. Cohen, of Baltimore), a bureau of maps and charts, a number of noteworthy autographs and literary manuscripts of modern date, and a large amount of the latest and best scientific apparatus—astronomical, physical, chemical, biological, pathological, and petrographical.

Medical science and medical education have been regarded as among the principal subjects to be considered by this University. This purpose was indicated by Johns Hopkins in the letter addressed by him to the Hospital Trustees, March 10, 1873, where he said to them:—"In all your arrangements in relation to this hospital, you will bear constantly in mind that it is my wish and purpose that the institution shall ultimately form a part of the Medical School of that University, for which I have made ample provision by my will." Accordingly, when the University was opened, ample provision was made for instruction in those studies which lead up naturally to the professional study of medicine. In addition to the courses in physics and chemistry, provision was made at that time for the study of biology, and a biological laboratory—the first of its kind in this country—was opened under the direction of well qualified instructors in comparative physiology and anatomy. But unforeseen delays in the completion of the hospital, and other considerations which need not be mentioned here, compelled a postponement of professional courses in the medical sciences, with the important exception of pathology. A professorship in this science was instituted in 1884, and was filled by the appointment of Dr. William H. Welch, and a pathological laboratory was opened, where facilities were afforded for the

study of bacteriology. Many graduates in medicine availed themselves of these opportunities. Meanwhile much attention had been directed to the importance of medical education for women, and efforts had been made by committees of ladies in Baltimore and other cities to secure for this purpose an adequate endowment, to be connected with the foundations of Johns Hopkins. As the result of this movement, the Trustees accepted a gift from the committee of ladies, a sum which, with its accrued interest, amounted to \$119,000, toward the endowment of a medical school to which "women should be admitted upon the same terms which may be prescribed for men." This gift was made in October, 1890, but as it was inadequate for the purposes proposed, Miss Mary E. Garrett, in addition to her previous subscriptions, offered to the Trustees the sum of \$306,977, which, with other available resources, made up the amount of \$500,000, which had been agreed upon as the minimum endowment of the Johns Hopkins Medical School. These contributions enabled the Trustees to proceed with the organization of a school of medicine, which was opened to candidates for the degree of Doctor of Medicine in October, 1893. Those who have already received this degree are admitted also to advanced courses.

In addition to the gifts already mentioned, the University has received other important benefactions. When its income from the Baltimore and Ohio Railroad was cut off, Mr. William W. Spence proposed that a number of friends of the University should make up, by subscriptions of \$5000 each, an emergency fund to be expended in maintaining the University in its normal efficiency. Some subscriptions of a less amount were received, and collectively the sum of \$108,700 was presented to the Trustees in the spring of 1889.

About the same time Mr. Eugene Levering offered to construct a building for the use of the Young Men's Christian Association, at a cost of \$20,000, and to maintain for a term of years a lectureship on subjects related to the work of that association.

Mr. and Mrs. Lawrence Turnbull proposed to endow a memorial lectureship of Poetry, with an income of \$1000 per annum.

A short time afterwards, Mrs. Caroline Donovan, through the Mayor, Hon. Ferdinand C. Latrobe, gave to the University one hundred thousand dollars for the foundation of a chair of English literature.

Mr. John W. McCoy, by his last will and testament, presented to the University his large and costly collection of books and made the University his residuary legatee. From this estate more than two hundred thousand dollars (subject for some years to annuities) has been received, and a considerable part of this has been expended in the construction of McCoy Hall, —an academic structure, much needed by the classes in languages, history and philosophy.

In the year 1887, Mrs. Adam T. Bruce, of New York, gave the sum of \$10,000 to found the Bruce Fellowship in memory of her son the late Adam T. Bruce, who had been a Fellow and an Instructor.

Recently, Mrs. William E. Woodyear has given the sum of \$10,000 to found five scholarships as a memorial of her deceased husband.

Many noteworthy gifts have been received by the Library,—among them the library of the late Professor Bluntschli, of Heidelberg, presented in 1882 by the German citizens of Baltimore, and the Cohen collection of Egyptian Antiquities, partly purchased and partly given by the nephews of Colonel Mendes I. Cohen, by whom the objects were brought together. From the libraries of Drs. Christopher Johnston, Frank Donaldson, F. E. Chatard, and J. H. Worthington, important medical books have been received; from the libraries of Charles J. M. Eaton, N. H. Morison, Nicholas Murray, and Charles D. Morris, many valuable historical and literary works were presented; and, besides these local gifts, some very acceptable books and manuscripts have been received from the libraries of Jared Sparks, George Ticknor, Francis Lieber, J. Caspar Bluntschli, Edouard Laboulaye,—gifts which, beyond their intrinsic merits, are valued for their association with the distinguished writers to whom they once belonged.

A few likenesses of departed members of the University have been given by their friends,—oil portraits of Johns Hopkins and Judge George William Brown, a bronze bust of Sidney Lanier, and a marble bust of Professor Charles D. Morris.

In conclusion, the following statistics may be recorded:—

SUMMARY OF ATTENDANCE, 1876-93.

Years.	Teachers.	Total Enrolled Students.	Graduates.	Maticu- lates.	Special.	Degrees Conferred.	
						A. B.	Ph. D.
1876-77.....	29	89	54	12	23	—	—
1877-78.....	34	104	58	24	22	—	4
1878-79.....	25	123	63	25	35	3	6
1879-80.....	33	159	79	32	48	16	5
1880-81.....	39	176	102	37	37	12	9
1881-82.....	43	175	99	45	31	15	9
1882-83.....	41	204	125	49	30	10	6
1883-84.....	49	249	159	53	37	23	15
1884-85.....	52	290	174	69	47	9	13
1885-86.....	49	314	184	96	34	31	17
1886-87.....	51	378	228	108	42	24	20
1887-88.....	57	420	231	127	62	34	27
1888-89.....	55	394	216	129	49	36	20
1889-90.....	58	404	229	130	45	37	33
1890-91.....	66	468	276	141	51	50	28
1891-92.....	65	547	337	140	70	41	37
1892-93.....	72	551	347	133	71	40	28

*Dated from the Johns Hopkins University,
December 24, 1893, twenty years from
the death of its founder.*





LIBRARY OF CONGRESS



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